To: ropper@mt.gov[]
Cc: CN=Ephraim King/OU=DC/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Corey Buffo/OU=DC/O=USEPA/C=US
Sent: Thur 12/29/2011 10:02:09 PM
Subject: Draft Letter EPA to MT
Martin Ltr 12-29-11 (3).docx
Martin Ltr 12-29-11 (4).docx
Letter EPA to MT NNC.docx

Attached are a few suggested edits from Ephraim for your consideration and a draft of our reply.

From: Ephraim King/DC/USEPA/US
To: Kendra Forde/DC/USEPA/US@EPA
Cc: Corey Buffo/DC/USEPA/US@EPA
Date: 12/29/2011 04:46 PM
Subject: Fw: Background document and revised letter
Sent by: Tamar Stone

----- Forwarded by Tamar Stone/DC/USEPA/US on 12/29/2011 04:45 PM -----

From: "Opper, Richard" <ropper@mt.gov>
To: Ephraim King/DC/USEPA/US@EPA
Date: 12/29/2011 04:32 PM
Subject: RE: Background document and revised letter

Ephraim,

Sorry I didn't get back to you sooner. I was out of the office. Here it is.

Richard

-----Original Message-----
From: Ephraim King [mailto:King.Ephraim@epamail.epa.gov]
Sent: Thursday, December 29, 2011 1:44 PM
To: Opper, Richard
Subject: RE: Background document and revised letter

Hello again Mr. Opper,

Would you please send me the latest version of the letter that you would
like to be sent to Region 8.

Please copy Corry Buffo as well.

Thanks,

Kendra Forde for

Ephraim King
Director
Office of Science & Technology
1200 Pennsylvania Ave., NW
Mail Code 4301T
Washington, DC 20460
Voice: (202) 566-0430
Fax: (202) 566-0441
king.ephraim@epa.gov

From: "Opper, Richard" <ropper@mt.gov>
To: Ephraim King/DC/USEPA/US@EPA
Date: 12/29/2011 12:56 PM
Subject: RE: Background document and revised letter

Thanks, Kendra.

Richard

-----Original Message-----
From: Kendra Forde [mailto:Forde.Kendra@epamail.epa.gov] On Behalf Of Ephraim King
Sent: Thursday, December 29, 2011 10:56 AM
To: Opper, Richard
Cc: Ephraim King
Subject: Fw: Background document and revised letter

This is being forwarded per Ephraim's request, as he thought you may want to see this string of emails.

Thanks,

Kendra Forde for

Ephraim King
Director
Office of Science & Technology
1200 Pennsylvania Ave., NW
Mail Code 4301T

Washington, DC 20460
Voice: (202) 566-0430
Fax: (202) 566-0441
king.ephraim@epa.gov
----- Forwarded by Kendra Forde/DC/USEPA/US on 12/29/2011 11:46 AM -----

From: Corey Buffo/DC/USEPA/US
To: Ephraim King/DC/USEPA/US@EPA
Date: 12/29/2011 11:33 AM
Subject: Fw: Background document and revised letter

[redacted]

----- Forwarded by Corey Buffo/DC/USEPA/US on 12/29/2011 11:31 AM -----

From: Carol Campbell/R8/USEPA/US
To: Martin.Jim@epamail.epa.gov
Cc: Ephraim King/DC/USEPA/US@EPA, Corey Buffo/DC/USEPA/US@EPA
Date: 12/29/2011 11:27 AM
Subject: Re: Fw: Background document and revised letter

[redacted]

Carol L. Campbell, Assistant Regional Administrator
Office of Ecosystem Protection and Remediation
United States Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, Colorado
80202

303-312-6340 (W)
303-312-6071(fax)

From: Corey Buffo/DC/USEPA/US
To: Ephraim King/DC/USEPA/US@EPA
Cc: Carol Campbell/R8/USEPA/US@EPA
Date: 12/29/2011 08:26 AM
Subject: Re: Fw: Background document and revised letter

Tina and I just spoke and we will have another version to you in a few.

This just came through Inside EPA:

Montana Model May Guide EPA Policy For Granting State Nutrient Variances
Posted: December 28, 2011

EPA is poised to release the results of a pilot economic model that would help regulators determine whether private businesses in Montana would face substantial and widespread harm if they are not granted variances from the state's numeric nutrient water quality criteria -- a tool that the agency says could be used by other states seeking variances from such limits.

An EPA Region VIII spokeswoman told Inside EPA that the agency has developed a draft tool "to help states determine which facilities, both publicly owned and private, can qualify for variances to the water quality standards based on economics" and that the Region is "working closely with Montana to pilot test this new tool." The spokeswoman added that the agency "plans to share this tool with the other states" but that the efficacy of the tool will depend on each state's particular circumstances.

Work on the tool comes as EPA's Office of Water, regional water managers and state regulators have established a "Nutrients Implementation Workgroup" to evaluate ways to make implementation of existing numeric nutrient criteria under the Clean Water Act "enforceable but flexible."

According to the minutes of a Montana Department of Environmental Quality (MDEQ) Nutrient Work Group (NWG) stakeholder meeting from Sept. 29, EPA hired Abt Associates, a private business and policy consulting firm, to assess the economic impacts of the state's numeric nutrient standards "on the private sector."

Another set of minutes from an NWG meeting on Sept. 1 says the study will analyze the business records of 70 businesses that represent a cross-section of the state's industrial wastewater dischargers. The study will look at the businesses' ability to borrow, as well as their short- and long-term liquidity over the most recent three years. The study is analyzing not only Montana branches but parent companies as well, so if Pepsi or Exxon/Mobil has a plant in Montana the analysis will apply to the parent company's financial health, not the health or profitability of the Montana plant, according to the minutes.

An MDEQ source says final analysis could be available in early 2012. The source says the state was able to provide Region VIII with sufficient economic data to demonstrate that public utilities and other dischargers would be unable to attain the numeric nutrient discharge standards in the short term, and so EPA's pilot study is limited to private sector dischargers. The state was unable to provide a similarly robust set of data for private sector dischargers for proprietary reasons, requiring the tool to use a modeling approach to determine whether the numeric criteria would be unduly burdensome.

Three Types Of Variances

The Montana State Legislature in April 2011 authorized MDEQ to adopt three types of variances for cities and businesses unable to meet the terms of the state's numeric nutrient criteria: a statewide variance, an individual variance and an alternative variance. The minutes of an MDEQ Nutrient Work Group from Sept. 1 describe the alternative variance as "for permitees demonstrating that meeting the nutrient discharge limitations for the other two variance types would result in an insignificant reduction in instream nutrient loading."

But EPA Region VIII raised concerns with the statewide variance

approach, telling MDEQ in a March 10 letter that the then-pending state legislation could be construed to say that the department must issue a variance in any circumstance where advanced nutrient treatment technology might be required. Such a law would circumvent federal requirements in Clean Water Act regulations that variances be issued only in the face of certain mitigating factors, in this case the "substantial and widespread economic and social impact" of a water quality standard.

"The bill says MDEQ 'shall' approve individual and general variances based upon adequate justifications, however the bill explicitly states that 'advanced treatment technologies for removing nutrients will result in significant and widespread economic impacts," the Region VIII letter says. "EPA views this language as removing MDEQ's discretion to determine, on a case-by-case basis, whether a variance justification sufficiently meets the federal requirements . . . and whether such variances should be granted."

MDEQ Director Richard Opper raised the issue with acting EPA water chief Nancy Stoner during the Environmental Council of the States' (ECOS) annual meeting March 29, only days after Stoner issued a memo to EPA regional offices calling on them to assist states in developing numeric nutrient criteria.

"There's no reason for us to actually adopt any numbers if we're not going to have much flexibility in implementing our numeric criteria," Opper said. "It seems like all that work [developing numeric criteria] may be for naught."

The state source says Montana's particular circumstances make the statewide variance necessary, because the state is so large and sparsely populated that many utilities and businesses lack the service base to be able to afford nutrient removal infrastructure in the near-term. However, under the variance as drafted, roughly 70 percent of dischargers will have to undertake some steps toward nutrient reduction just to meet the terms of the variance. As time goes on, further technological steps will be necessary as well, the source says.

"One thing we can do is operational changes -- change the way we operate a plant to make it operate more efficiently, aside from a change in technology," the source says. "It's probably not enough ultimately to meet the new standards, but it gets ratcheted down over time, and eventually we'll have to meet the standards." -- John Heltman (jheltman@iwpnews.com This e-mail address is being protected from spambots. You need JavaScript enabled to view it)

Related News: Water

2386054

December 29, 2011

Mr. Jim Martin
Regional Director
US EPA Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

Dear Jim:

This letter is to inform the Environmental Protection Agency (EPA) of Montana Department of Environmental Quality's (MDEQ) plans to adopt numeric nutrient water quality standards, and our subsequent variance process to implement those standards.

First, I would like to thank you and your agency for your collaboration and commitment of resources throughout this effort. We appreciate the ability to work through the many issues over the course of this obviously high profile endeavor. Nutrient criteria and the ensuing reduction strategies are some of the highest water quality priorities for both Montana and EPA.

I think it is important to provide some background in this letter for the effort that's taken place to date. MDEQ has been developing numeric standards for Total Nitrogen (TN) and Total Phosphorus (TP) for over 10 years. Early on, the department realized the low TN and TP concentrations under consideration would be difficult, if not impossible, for Montana municipalities and businesses to meet. Therefore, in 2009 MDEQ proposed State Legislation (SB95) that authorized the department the ability to grant *individual* variances from numeric nutrient standards using financial affordability or limits of technology as tests. One component of that legislation was a formalization of our stakeholder advisory group, known as the Nutrient Work Group (NWG). This group is comprised of representatives from small, medium, and large municipal communities; private point source permitted industries; the timber & agricultural industries; environmental groups; the Montana Department of Commerce; private wastewater engineering consultants; and Conservation Districts.

Following the 2009 legislative session, the department in consultation with the NWG developed another piece of State legislation, which was proposed at the 2011 session (SB367). The bill concluded that substantial and widespread (S&W) economic impacts would occur if permittees were required to meet the base numeric nutrient standards developed by MDEQ. Also, this bill created a general variance

category based on discharge flow, and established permit limits for TP and TN through May 31, 2016. The law requires the department to have rules in place prior to 2016 to ensure no lapse in regulation. Immediately following May 31, 2016 and every 3 years thereafter, the law requires the department to review and update (tighten) the permit values in the general variance category. The 3-year intervals are designed to follow our normal triennial review of water quality standards. Finally, variances are not to exceed 20 years, at which time the state numeric nutrient standards must be met.

Now that Montana has established (but not yet adopted) base numeric nutrient standards and a variance process, it's time to focus on how to implement a path forward. Our implementation approach is described below:

- MDEQ concludes that meeting the standards will cause substantial and widespread (S&W) impacts. Furthermore, reverse osmosis is the only current technology that can meet our draft standards, and the cost of this treatment type is simply too high for Montana stakeholders. However, in good faith, MDEQ agreed to conduct an S&W test on both public and private sectors for EPA's review. The department has completed the public sector test and we have worked very closely with EPA, in consultation with Tetra-Tech Consulting, to finalize the private sector test. I have attached reports on both of these demonstrations to this letter (Appendices A & B).
- This summer the department plans to propose adoption of our base numeric nutrient standards before the Board of Environmental Review (our rule-making authority). The Board only has authority to approve the base standards; adoption of the variance rules will be done by the department itself. However, during this same rule-making process, we plan to adopt into rule the general variances currently in statute, ensuring the entire "package" becomes part of a public process. I'm sure you understand the need to ensure that both the standards and the variance process proceed concurrently.
- Again, MCA 75-5-313 requires the department to update the general variance permit limits immediately following May 31, 2016. It is important to note that we will not have these numbers developed at the time of this summer's rule-making.
- Between now and May 31, 2016, MDEQ plans to continue developing aspects of this process. The department will work with the NWG and EPA to develop permit limits in rule that revise the general categories permit limits for TP and TN and move towards achieving the base numeric standards. The result will be a ratcheting down of the permit numbers as appropriate while still utilizing some tests of affordability and limits of technology. Until the statutory categorical variances expire on May 31, 2016, however, the department has no rule-making authority to adopt revisions to the general variances.

MDEQ views the entire numeric standards and variance process as part of a long-term nutrient reduction strategy. In previous letters to EPA (Richard Opper to Jim Martin, March 9, 2011), we have pointed out that the implementation of MCA 75-5-313 will result in significant nutrient reductions in Montana waters. Additionally, adoption of our standards will trigger a state-wide phosphorus ban, and will enable the TMDL program to write quality TMDLs with numeric waste load allocations. It will also

improve our MPDES program's ability to write discharge permits. That is why we are anxious to keep the momentum on this process to achieve our common goals.

We believe that Montana's approach to reducing nutrient pollution in waters of the state and U.S. could be a model for other states. Our approach will result in immediate improvement in water quality, since approximately 70% of our water discharges will have to take additional steps just to meet the variance. The approach has the buy-in of a diverse stakeholder group that helped us develop our implementation process. The variance will be tightened over the years. And within a reasonable timeframe, our very strict standards must be met. The approach is consistent with Nancy Stoner's March 2011 memo, and we are convinced that it is consistent with the federal Clean Water Act and approvable by EPA. But all future progress hinges upon EPA's agreement with our assessment. So please let us know whether you believe that our variance process as developed over the years in collaboration with many stakeholders, including EPA, is consistent with the CWA and approvable.

Again, we appreciate EPA's considerable efforts to help us in the effort to ensure clean water for future generations.

Sincerely,

Richard H. Opper
Director

cc. Ephram King, EPA
Julie Dalsoglio, EPA
George Mathieus, DEQ/PPA
Mark Bostrom, DEQ/WQPB
Mike Suplee, DEQ/WQPB
Jeff Blend, DEQ/ PPA

December 29, 2011

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Regional Director
US EPA Region 8
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general variance category based on discharge flow, and established permit limits for TP and TN through May 31, 2016. The law requires the department to have rules in place prior to 2016 to ensure no lapse in regulation. Immediately following May 31, 2016 and every 3 years thereafter, the law requires the department to review and update (tighten) the permit values in the general variance category. The 3-year intervals are designed to follow our normal triennial review of water quality standards. Finally, variances are not to exceed 20 years, at which time the state numeric nutrient standards must be met.

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Sincerely,

Richard H. Opper
Director

cc. Nancy Stoner, EPA
Ephraim King, EPA
Julie Dalsoglio, EPA
George Mathieus, DEQ/PPA
Mark Bostrom, DEQ/WQPB
Mike Suplee, DEQ/WQPB
Jeff Blend, DEQ/ PPA

Dear Richard:

Thank you for the opportunity to conduct an initial review of Montana's draft analysis and assessment to support temporary variances for public and private entities from Montana's draft criteria for wadeable streams.

EPA understands that Montana passed SB 367 on April 21, 2011, authorizing the Montana Department of Environmental Quality (MDEQ) to establish numeric nutrient criteria (NNC) for nitrogen and phosphorous and to implement a variance process that supports incremental progress toward achieving those criteria on an adaptive management basis. Our understanding, based on numerous public meeting with stakeholders and conversations with your staff, is that MDEQ plans to propose rulemaking this spring to implement both the temporary variance process and related NNC. We also understand that your draft NNC are: for total phosphorous 0.006-0.124 mg/L and for total nitrogen 0.130-1.358 mg/L.

We commend you and your colleagues for the hard work and commitment to establishing numeric nutrient criteria and a related implementation process for the State of Montana. We recognize the strong science-based work MDEQ has conducted over the past several years to develop draft NNC for N and P for wadeable streams. This is an important step forward in addressing a pressing national problem. We also support your commitment to working closely with stakeholders throughout this process.

The variance provisions of the legislation provide for interim effluent values of no greater than 1 milligram of total phosphorous and 10 milligrams of total nitrogen per liter for facilities discharging greater than or equal to 1 million gallons per day, and 2 milligrams of total phosphorous and 15 milligrams of total nitrogen per liter for those facilities discharging less than 1 million gallons per day. Under the legislation, we understand that every three years these values must be revisited by MDEQ and adjusted, as necessary, to account for new, cost-effective and efficient treatment technologies and that the justification for these variances must be reviewed to ensure they remain valid.

You have requested Region 8's preliminary comments on the variance approach outlined above. In that regard, MDEQ has provided its technical analysis, based upon available information, supporting the state's belief that a temporary variance process is essential to assure effective long-term implementation of the draft NNC. This analysis presents the State's assessment of the economic and social impact of Montana's draft nutrient criteria and takes into consideration the economic environment of Montana's industries and the statewide economic impact of compliance with the draft standard, consistent with EPA's Interim Economic Guidance for Water Quality Standards (EPA-823-B-95-002, March, 1995). It also assumes that immediate compliance with your draft NNC will necessitate reliance upon reverse osmosis to treat 100% of effluent. As EPA has stated in other contexts, the Agency believes that application of reverse osmosis on such a large scale has not been demonstrated as practical or necessary.

After careful review of the above-reference analysis and assumptions offered by the State, the EPA concludes that the issuance of the variances would be consistent with the Clean Water Act and its implementing regulations. This conclusion may change in the event there are

modifications to any of the above-referenced proposals, approaches, and/or supporting analysis. We would be happy to meet with you to discuss this matter in greater detail.